

Amendments to the Specification

Please replace paragraph [0005] with the following rewritten paragraph:

[0005] When the metal ions attach to the molecules of the gas to be detected, they extremely gently attach to the locations of the charges biased on the gas molecules and almost no dissociation occurs. The smaller the bond energy, however, the easier the re-detachment of the Li^+ . To prevent this, it is necessary to raise the pressure in the ionization chamber 11 to the value included in the range of 10 - 1000 Pa (usually 100 Pa) by the third component gas introduction mechanism 23 and use collision with the gas in order to absorb the excess energy. The third component gas which also can be defined as excess-energy absorbing gas, is one of various inert gases, such as N_2 , which it relatively hard for the metal ions to attach to. The gas with the metal ions stably attached thereto passes through the differential evacuation chamber 12 where the focusing lens 28 is arranged. The gas subsequently enters the mass spectrometry chamber 13 where it is separated from the other gases so as to be detected in every mass through the Q-pole mass spectrometer 30.